

#### **405 KAR 3:160. Diversions of surface and underground flows.**

RELATES TO: KRS 350.151

STATUTORY AUTHORITY: KRS 350.151

NECESSITY, FUNCTION, AND CONFORMITY: KRS 350.151 requires the Environmental and Public Protection Cabinet to adopt rules and administrative regulations for the surface effects of underground coal mining. This administrative regulation sets forth requirements relating to diversions of surface and underground water flows.

Section 1. Diversions of Overland Flows. In order to minimize erosion and to prevent or remove water from contacting toxic-producing deposits, overland flow from undisturbed areas may, if required or approved by the cabinet, be diverted away from disturbed areas by means of temporary or permanent diversion structures. The following requirements shall be met:

(1) Diversions shall be designed, constructed, and maintained in a manner to prevent additional contributions of suspended solids to stream flow or to run off outside the permit area to the extent possible using the best technology currently available. In no event shall such contributions be in excess of requirements set by applicable state or federal law. Appropriate sediment control measures for these diversions shall include, but not be limited to, maintenance of appropriate gradients, channel lining, revegetation, roughness structures, and detention basins.

(2) Temporary diversion structures are those used during surface operations and reclamation. When no longer needed, these structures shall be removed and the areas reclaimed. Temporary diversion structures shall be constructed to safely pass the peak run-off from a precipitation event with a one (1) year recurrence interval, or a larger event as specified by the cabinet. The design criteria must assure adequate protection of the environment and public during existence of the temporary diversion structures.

(3) Permanent diversion structures are those remaining after surface operations and reclamation and approved for retention by the cabinet and other appropriate state and federal agencies. To protect fills and property, to prevent water from contacting toxic-producing deposits, and to avoid danger to public health and safety, permanent diversion structures shall be constructed to safely pass the peak run-off from a precipitation event with a 100-year recurrence interval or a larger event as specified by the cabinet. Permanent diversion structures shall be constructed with gently sloping banks that are stabilized by vegetation. Asphalt, concrete, or other similar linings shall not be used unless specifically required to prevent seepage or to provide stability and are approved by the cabinet.

Section 2. Stream Channel Diversions. (1) Flow from perennial and intermittent streams within the permit area may be diverted only when the diversions are approved by the cabinet and they are in compliance with local, state, and federal statutes and regulations. When stream-flow is allowed to be diverted, a new stream channel shall be designed and constructed to meet the requirements of this section.

(a) The average stream gradient shall be maintained and the channel designed, constructed, and maintained to remain stable and to prevent additional contributions of suspended solids to stream flow or to run off outside the permit area to the extent possible using the best technology currently available. In no event shall contributions be in excess of requirements set by applicable state or federal law. Erosion control structures such as channel lining structures, retention basins, and artificial channel roughness structures shall be used only when approved by the cabinet for temporary diversions where necessary or for permanent diversions where they are stable and will require only infrequent maintenance.

(b) Channel, bank, and flood plain configurations shall be adequate to safely pass the peak run-off of a precipitation event with a ten (10) year recurrence interval for temporary diversions and a

100-year recurrence interval for permanent diversions, or larger events as specified by the cabinet.

(c) Fish and wildlife habitat and water vegetation of significant value for wildlife shall be protected in consultation with appropriate state and federal fish and wildlife management agencies.

(2) All temporary diversion structures shall be removed, and the affected land regraded and revegetated consistent with the requirements of this chapter regarding backfilling, grading and revegetation. At the time such diversions are removed, the permittee shall insure that downstream water treatment facilities previously protected by the diversion are either modified or removed to prevent overtopping or failure of the facilities.

Section 3. Stream Buffer Zone. No land within 100 feet of an intermittent or perennial stream shall be disturbed by surface operations of underground coal mining unless the cabinet specifically authorizes operations through such a stream. The area not to be disturbed shall be designated a buffer zone and marked as specified in 405 KAR 3:070 regarding signs and markers.

Section 4. Discharge Structures. Discharges from sedimentation ponds and diversions shall be controlled, where necessary, using energy dissipators, surge ponds, and other devices to reduce erosion and prevent deepening or enlargement of stream channels and to minimize disturbances to the hydrologic balance.

Section 5. Discharge of Waters into Underground Mines. Surface and groundwaters shall not be discharged or diverted into underground mine workings, except with approval of the cabinet. (4 Ky.R. 421; eff. 5-3-78; Am. 524; 5 Ky.R. 231; eff. 8-23-78; TAm eff. 8-9-2007.)